

The National Aeronautics and Space Administration (NASA) and the University of Maryland Eastern Shore (UMES) have a long and distinguished history of collaboration. In November 1997, a Memorandum of Agreement between UMES and the NASA Goddard Space Flight Center, including its Wallops Flight Facility, formalized the opportunity for future collaboration as follows:

*"NASA and UMES will continually explore and encourage collaborative activities between NASA's scientists, engineers, and technical support staff and UMES's faculty, students, and technical support staff. The emphasis of these collaborative activities is to provide the faculty and students the opportunity to broaden their educational skills through practical experience relative to planning, designing, and conducting scientific experiments."*

## PROGRAMS & PROJECTS

### Undergraduate Multi-Disciplinary Earth Science-Airborne Imaging Research Project (UMES-AIR)

**Purpose:** Active learning research project involving flying an instrumented payload up to 2500' on a 21' tethered blimp

**Status:** Five successful flights

**Students:** multi-disciplinary ug

**Funding:** \$32K

**Point of Contact:** Dr. Abhijit Nagchaudhuri, Engineering and Aviation Sciences Department

**Phone Number:** 410-651-6479

**Email:** anagchaudhuri@mail.umes.edu

### Summer Bridge Program

**Purpose:** Bridge gap from high school coursework to freshmen engineering courses preparation

**Status:** Completed summers of 2000, 2001, and 2003

**Students:** incoming freshmen

**Funding:** \$297K, Pre-College Awards for Excellence in Mathematics, Science, Engineering and Technology (PACE)

**Point of Contact:** Dr. Gurbax Singh, Department of Natural Sciences

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### Mathematics, Engineering and Science Enrichment Pre-College Program (MESEP)

**Purpose:** Ignite students' interest in math, science, engineering and technology

**Status:** Completed one-year pilot program; secured Goddard Director's Discretionary Funding (DDF) for follow-on

**Students:** grades 9-12 from Eastern Shore of MD and VA high schools

**Funding:** \$50K; \$20K DDF

**Point of Contact:** Dr. Peter Ezekwenna, Mathematics & Computer Science Department

**Phone Number:** 410-651-6425

**Email:** PEzekwenna@mail.umes.edu

### Science, Engineering, Math, and Aerospace Academy (SEMAA)

**Purpose:** Ignite students' interest in math, science, engineering, and technology

**Status:** Completed Spring 2002 and Summer 2002; Recruiting for Fall 2002

**Students:** Accomack county in VA and Somerset county in MD, grades 5-8

**Funding:** \$375K

**Point of Contact:** Dr. Daniel Okunbor

**Phone Number:** 410-651-6420

**Email:** diokunbor@mail.umes.edu

### NASA-UMES Student Internship Program

**Purpose:** Provide ten-week internship for six students with NASA personnel

**Status:** Completed Summer 2002

**Students:** ug and grad

**Funding:** \$50K

**Point of Contact:** Ibibia Dabipi, Engineering and Aviation Science Department

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## Announcing the Newest Collaborative Project:

### Mathematics, Science, and Technology Awards for Teacher and Curriculum Enhancement Program (MASTAP)

**Purpose:** Address critical shortage of well qualified math teachers in middle and high schools on Eastern Shore of MD and VA

**Status:** Begins 2003

**Participants:** Ten each pre-service teachers, in-service teachers seeking math certification, and in-service teachers with math certification.

**Funding:** \$584K

**Point of Contact:** Dr. Daniel Seaton, Math and Computer Science Department

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### ***Points of Contact:***

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### **Presentations & Papers**

A number of presentations have been made on the described projects.

Check the following web sites:

<http://hawk.umes.edu/abhijit/rpres.html>

[http://www.asee.org/conferences/search/01051\\_2001.PDF](http://www.asee.org/conferences/search/01051_2001.PDF)

[http://www.asee.org/conferences/search/00953\\_2001.PDF](http://www.asee.org/conferences/search/00953_2001.PDF)

<http://fie.engrng.pitt.edu/fie2001/> (click on Sessions and Saturday sessions [S2E]; click on Dr. Abhijit Nagchaudhuri )

**Dr. Thelma B. Thompson**  
**President**

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University of Maryland  
Eastern Shore  
Princess Anne, MD 21853  
<http://www.umes.edu/>  
**NASA-UMES**  
**Collaboration:**

***A Partnership in Education***